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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,565	09/18/2000	Tejas Naik	2	4575

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EXAMINER

NGUYEN, HANH N

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/664,565

Applicant(s)

NAIK, TEJAS

Examiner

Hanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Response filed on 3/31/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 3, 4, 5, 6, 7 and 8 are rejected under 35 USC 103(a) as being unpatentable over **Li** (US Pat. No. 6,707,796 B1) in view of **D'Souza** (US Pat. No. 6,173,324 B1).

In claims 1, 2, 3, 4, 5, 6, 7 and 8, **Li** discloses, in Fig.4, two nodes groups G (a plurality of areas) represented by Multicast Source proxy (MSP1, MSP2) routers (area border routers) interconnecting via backbone 401 (see col.6, lines 52-65) using OSPF protocol (col.6, lines 10-15). Refer to Fig.7, at step 704, a MSP router (border router) is determined whether it is in the list of MSP routers which means that whether the MSP router has route connection to destination (analyzing the router to determine if it is already connected to a network). If the MSP router is not in the list, at step 706, the MSP router is added to the list and elected as a new designated MSP router from among MSP routers in the list which inherently shows routes to destinations (if the router is not already connected to the network, adding the router to the list of routers which inherently establishing link through the router). At steps 710&714, the new designated MSP router (added border router) is determined and used to forward packet between a pair of source and destination through network (establishing link through the border router to network). See col.10, lines 1-25. **Li** does not disclose if a virtual link can not be established through the router, establishing a virtual link through a neighbor router to the backbone. **D'Souza** discloses, in Fig.1,

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that when a new router is added into network 10, routers in the network establish new connections to router data packet using OSPF protocol (see col.2, lines 55-65). A monitor 21 (network management) monitors routers to detect connectivity faults, and determines a new route which is added into the network for forwarding data packets (if a virtual link can not be established through the router, establishing a virtual link through a neighbor router to the backbone). See col.3, lines 25-45.

Since the **D'Souza** 's invention includes addition routers interconnected via addition links that carrying data through the network, and a packet may be travelling through multiple routers and corresponding link interconnections between a source and a destination, (see col.2, lines 35-44); therefore, it would have been obvious to one ordinary skill in the art to combine the **D'Souza** with **Li** by interconnecting node groups G via the additional MSP routers and addition links locating around network 401. The network monitor 21 is used to monitor border routers MSP in order to detect a new connection if one the border router fails to forward data to another network. The motivation is to configure network by determining shortest paths using OSPF protocol when a link, a border router is added or deleted.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Callon et al. (US Pat. No. 5,854,899) discloses Method and Apparatus for Managing Virtual Circuits and Routing Packets in a Network/Subnetwork Environment.

Furuichi (US Pat. No. 6,363,072 B1) discloses ATM Network Communication Control System Allowing End-To-End Connection To be Set Up with Ease and Communication Control Method Thereof.

Byrne (US Pat. No. 6,229,787 B1) discloses Mechanism to Achieve Very Fast Failover in ATM Backbone Networks Using Multi-Homed Circuits.

Tappan (US pat. No. 6,473,421 B1) discloses Hierarchical Label Switching Across Multiple OSPF Areas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 703 306-5445. The examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 703 305 4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

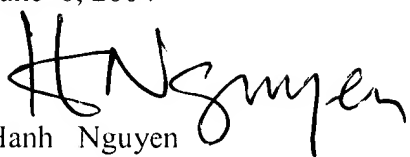
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 6, 2004


Hanh Nguyen